

WHAT IS CLAIMED IS:

1. Software for routing calls in a call center based on a transaction request obtained from a natural language caller utterance, the software embodied in computer readable media and when executed operable to:
 - evaluate the natural language caller utterance in accordance with a statistical language modeling speech recognition utility;
 - determine whether the natural language caller utterance includes an action;
 - determine whether the natural language caller utterance includes an object;
 - if the natural language caller utterance includes only an action, elicit a natural language caller utterance identifying an object;
 - if the natural language caller utterance includes only an object, elicit a natural language caller utterance identifying an action;
 - if neither an action nor an object are included in the natural language caller utterance, prompt the caller for a natural language utterance identifying an action and an object;
 - once an action and an object have been identified, locate an intersection of the action and the object in an action-object matrix;
 - determine a routing destination from a look-up table associated with the action-object matrix intersection;
 - and
 - direct the caller to the routing destination.

2. A method for identifying a routing destination
in a service center, comprising:

prompting a user to convey a request;
receiving a natural language utterance from the

5 user;

comparing the natural language utterance to an
action-object matrix;

identifying a routing destination based upon results
of the natural language utterance to action-object matrix
10 comparison; and

routing the user to the routing destination.

3. The method of Claim 2, further comprising:

querying the action-object matrix to identify
15 related objects if only an action and not an object is
included in the natural language utterance; and

prompting the user for selection of a related
object.

20 4. The method of Claim 2, further comprising:

querying the action-object matrix to identify
related actions if an object and not an action is
included in the natural language utterance; and

prompting the user for selection of a related
25 action.

5. The method of Claim 2, further comprising
initiating a disambiguation dialog with the user where an
action-object combination cannot be found in the
30 action-object matrix.

6. The method of Claim 2, further comprising
identifying at least one of an action, an object and an
action-object combination using a statistical language
5 modeling speech recognition utility.

7. A system for routing a service center user based on a natural language request, comprising:

at least one processor;

memory operably associated with the at least one
5 processor;

a program of instructions storable in the memory and executable by the processor, the program of instructions operable to identify a task to be performed from a natural language user request and a task matrix and to
10 direct the user to a service center agent for performance of the task.

8. The system of Claim 7, further comprising the program of instructions operable to:

15 identify an action-object combination from the natural language user request; and

locate a service agent to perform the task based on the identified action-object combination and the task matrix.

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9. The system of Claim 7, further comprising the service center agent operable to provide automated user assistance in performance of the task.

25 10. The system of Claim 7, further comprising the service center agent operable to provide technician assisted performance of the task.

30 11. The system of Claim 7, further comprising the task matrix including a plurality of available service

center actions each cross-referenced with one or more objects creating action-object combinations and where the action-object combinations define tasks available from a service center agent.

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12. The system of Claim 11, further comprising the program of instructions operable to reference a look-up table containing service center agent routing destinations in response to a match between an action and
10 an object in the natural language utterance and an action-object combination in the action-object matrix.

13. The system of Claim 7, further comprising the program of instructions operable to identify at least one
15 of an action or an object in the natural language utterance to identify the task to be performed.

14. The system of Claim 7, further comprising the program of instructions operable to prompt the user for
20 at least one additional natural language user request in response to identifying an action and no object in the natural language user utterance.

15. The system of Claim 7, further comprising the
25 program of instructions operable to prompt the user for at least one additional natural language user request in response to identifying an object and no action in the natural language user utterance.

16. The system of Claim 7, further comprising the program of instructions operable to prompt the user for confirmation of the identified task requested.

17. Software for routing users to an appropriate service center destination, the software stored in computer readable media and when executed operable to:

5 match a transaction request derived from a natural language utterance to a transaction option in a transaction option matrix; and

facilitate connection between the user and a service module operable to effect processing of the requested transaction.

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18. The software of Claim 17, further operable to initiate a disambiguation dialog with a user in response to a failure to match a transaction request derived from the natural language utterance to a transaction in the transaction option matrix.

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19. The software of Claim 17, further operable to derive an action-object combination from the natural language utterance.

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20. The software of Claim 19, further operable to: locate an action-object intersection in the transaction option matrix matching the derived action-object combination; and

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reference a look-up table associated with the transaction option matrix, the look-up table containing destination information for a service module operable to effect the transaction option associated with the action-object intersection.

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21. The software of Claim 19, further operable to:
query an action-object matrix in response to
derivation of an action without an object to identify
available objects associated with the derived action; and
5 prompt the user for a natural language utterance
selection of an available object associated with the
derived action.

22. The software of Claim 19, further operable to:
10 query an action-object matrix in response to
derivation of an object without an action to identify
available action associated with the derived object; and
prompt the user for a natural language utterance
selection of an available action associated with the
15 derived object.